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Abstract

Industry 4.0; the drones- fleet-5- life

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Abstract:

DRONES-FLEET-5-LIFE; the first firefighting fleet of Unmanned Aerial Vehicles (UAVs, drones) able to intercommunicate on flight and make operative decisions without the intervention of a human controlled ground station. The DRONES-FLEET-5-LIFE, is an ad hoc network connected wiressly (5G, Wi-Fi, Lifi, 4G, etc.) where each of the nodes are drones. This network has the characteristic of a swarm and are programmed using algorithms inspired by nature, that allow us to perform a collective work, tailored, in the cloud and complementary to the management and technological systems of the company. In other hand, the main idea will be; to make manufacture of swarms of drones for specific target, customized according to the requirements and needs of the final customer (Order on demand). The sectors selected for the manufacture of the swarms are: energy, agricultural, telecommunication, infra structure (Bridges, roads, building, pipeline, etc.). The manufacture of the swarms fleet -5-life and in the production process integrate the fundamental elements of industry 4.0 (Big Data, IoT, cloud, cyber security, 3D print, A.I, Cobots, simulation, 5G, horizontal and vertical integration, management systems,etc.) The core of the swarms or the added value manufacturing will be; the software that will allow the swarm to perform optimally, in less time and more security

Biography:

EProfessional with wide experience as professor and researcher in Computer Engineering, Telecommunications and Mathematics..International reviewer of recognized journals (IEEE, Elsevier, IAJIT, etc.), expert editor in Mobile Networks, Telecommunication, Ad hoc Networks, Wearables and Algorithms with more than 300.000 downloads. Publisher of more than 100 articles and 10 books. Thesis director at undergraduate and postgraduate level in Telematics,Telecommunication and Computer engineering.

Publication of speakers:

1. Cuellar, Juan & Arciniegas, Jose & Ortiz, Jesus. (2019). Model to evaluate Quality of Experience to IPTV service. 10.23919/CISTI.2019.8760904.
2. Cuellar, Juan & Arciniegas, Jose & Ortiz, Jesus. (2018). Modelo para la medición de QoE en IPTV. 10.18046/EUI/ee.3.2018.
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4. Ortiz, Jesus & Ahmed, Bazil & Pantoja Bastidas, Juan. (2014). Integration of FHAMIPv6/Diffserv/MPLS/Load Balancing Algorithm.

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